

# nicolagiacchetta

software engineer

## contact

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## languages

**Italian:** mother tongue  
**English:** advanced  
**French:** conversational  
**Spanish:** conversational

## skills

### Java Ecosystem:

Java, Gradle, Maven,  
Jenkins, Dropwizard,  
Tomcat, JUnit, Mockito

### Message/Streaming

**Platform:** Apache Kafka

### Databases:

MySQL, Couchbase

### Cloud Services:

AWS Dynamo DB,  
Google Cloud Datastore

### Collaboration Tools:

GitHub, SVN, Perforce

**Frontend:** HTML5, CSS3,  
Javascript, JQuery

**Other:** Consul, Docker,  
Nomad, Bash, XML, JSON,  
Python, C/C++

## interests

### Professional

Distributed Systems  
Databases  
Microservices  
Clean Code

### Personal

football  
tennis  
music  
vinyls  
cooking  
photography  
traveling

## education

### Master of Computer Engineering

Università degli Studi di Napoli Federico II

Thesis: *Resource efficient sensor allocation for geographic range queries in IoT Service Orchestration.*

Final Grade: 110/110

Napoli, Italy | Oct 2015

### Bachelor of Computer Engineering

Università degli Studi di Napoli Federico II

Napoli, Italy | Dec 2011

## work experience

### Software Engineer, Infrastructure Facebook

London, UK | Sep 2020–Present

The Software Engineering Infrastructure team builds large distributed components that run Facebook. Our code serves millions of requests per second and it does so with sub-second latency and in a fault tolerant manner.

### Java Backend Developer Vonage

London, UK | Dec 2016–Aug 2020

Designed and maintained the core backend of a Cloud Communication Platform, mainly focused on services High-Availability, data replication and data migration.

- worked on a tool for Change Data Capture to perform MySQL Binlog Mining for Master-Slave replication, changes notifications and generation of materialized view to implement a CQRS-style architecture
- worked on database migrations
- extracted microservices from a complex monolithic application
- implemented a service to perform Failure Detection and health statuses aggregation
- worked on performance bottlenecks due to the low cardinality of AWS Dynamo DB indexes
- worked on a data pipeline to anonymize users' PII in the platform to comply with the GDPR
- mentored junior team members and took part in several hiring processes

### Software Engineer EidosMedia

Milan, Italy | Dec 2015–Oct 2016

Developed a software layer to expose the core functionalities of the backend of a Digital Content Publishing Platform via RESTful APIs.

- developed new RESTful APIs
- developed algorithms to manage the internal document model of the platform
- increased unit test coverage (from ~30% to ~90%)
- refactored a key internal web service reducing its codebase from ~5000 to ~4000 LoC
- implemented a plugin for the integration with the Apple News API

### Research & Development Intern NEC Laboratories Europe

Heidelberg, Germany | Jan–Jun 2015

Built a Java module implementing a resource efficient sensor allocation algorithm for geographic range queries to be integrated in the IoT Broker GE.

- carried out most of the scientific research to find an algorithmic solution for the problem
- implemented the chosen algorithm in Java and a JavaFX-based simulation environment

## extra curricular activities

### O'Reilly: Software Architecture Conference Conference Talk

Berlin, DE | 4-7 Nov 2019

Extensible autonomous transactions in the world of microservices

### ApacheCon Europe 2019 Conference Talk

Berlin, DE | 22-24 Oct 2019

Extensible Autonomous Transactions In The World of Microservices using Apache Kafka

### Team Kanban Practitioner (TKP) Lean Kanban University

London, UK | Jun 2017

Completed training in improved collaboration and Team Kanban concepts based on the Kanban method and accepted by Lean Kanban University as a Team Kanban Practitioner.

### Co-Founder & Administrator Zerottouno.it

Naples, Italy | Jan 2012–Feb 2013

Co-founded a website where the users could get all-round information about the town of Naples. The aim was to create a virtual community built around a news aggregator.

- co-managed a team of 9 people (6 bloggers, 1 UI designer, 2 Developers)
- built a community of thousands of active users (~N x 100K unique page-views per Month)